

Abstract

5 A galvanic probe comprises a sensor electrode and a reference electrode. The sensor electrode has an exposed surface that comprises a noble metal or antimony or bismuth, and, optionally, an oxide or hydroxide thereof. The reference electrode is spaced apart from the sensor electrode and has an exposed surface that comprises zinc or magnesium, and, optionally, an oxide or hydroxide thereof. The probe may be incorporated into a device for controlling the pH and/or ORP of a fluid in a vessel to a desired pH and/or ORP level, incorporated into methods for measuring the pH and/or ORP of a fluid, or used as a galvanic cell.